INTREPID system parameters and `install.cfg` (R07)

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INTREPID originally required operating system environment variables to control system parameters. In the current version, most users do not need to set environment variables. Instead, they set system parameters in **`install.cfg`**.

To temporarily override a system parameter for a task, set an environment variable in the task shell with the same name as the system parameter.

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Including the INTREPID installation folder in PATH

You need to include the full INTREPID installation path in the PATH system environment variable of your computer or task shell if:

- You want to use INTREPIDLynx. See:
  - INTREPIDLynx—access for ArcView, MapInfo and ERMapper (T29)
- You want to launch INTREPID tools using commands in a command window. See:
  - "How to start INTREPID—Interactive mode" in Introduction to INTREPID (R02)
  - "How to start INTREPID—Batch mode" in Introduction to INTREPID (R02)

About INTREPID system parameters

INTREPID system parameters reside in the **`install.cfg`** file. See Ways of setting INTREPID system parameters and environment variables below for more information.

Notation for system parameters in this manual

We show the names of system parameters in capitals, (for example, INTREPID_MEMORY) except in examples of text to be typed by you.

We show values of system parametes in **`monospace`** font, for example, **`c:\project`**

You can use the value of another system parameter in a system parameter assignment (See below).

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Ways of setting INTREPID system parameters and environment variables

Hierarchy of system parameter values

INTREPID determines the value of a system parameter in the following order:

1. If the parameter is set in the task specification (**.job**) file, INTREPID uses that value.
2. If the parameter is not set in the task specification (**.job**) file, INTREPID looks in the environment and uses any value that is set there.
3. If the parameter is not set in the task specification (**.job**) file and also not set in the environment, INTREPID uses the value in the **install.cfg** file.

How to set system parameters under *Windows*

- **Temporary settings for a particular task specification (.job) file:** Assign the parameter a new value in the task specification (**.job**) file. For example, to force memory use to the disk, you might put:

  ```
  INTREPID_MEMORY = 10
  ```

- **Temporary settings for the current session only (environment variable):** *(Only if you are launching INTREPID tools using commands)* Use the **set** command before typing the command that launches the INTREPID tool. For example:

  ```
  set INTREPID_FAST_POINTS = YES
  ```

  This environment variable setting overrides the setting in **install.cfg** within the current command window only.

- **Permanent settings for all uses of INTREPID:** Edit the **install.cfg** file in the INTREPID **config** directory

  For example, **c:\Program Files\intrepid\config**.

How to set system parameters under UNIX

- **Temporary settings for a particular task specification (.job) file:** Assign the parameter a new value in the task specification (**.job**) file. For example, to force memory use to the disk, you might put:

  ```
  INTREPID_MEMORY = 10
  ```

- **Temporary settings for the current session only (environment variable):** Use the **export** or **setenv** command before typing the command that launches the INTREPID tool, as appropriate for your shell. For example:

  ```
  export INTREPID_FAST_POINTS=YES
  ```

  This environment variable setting overrides the setting in **install.cfg** within the current session only.

- **Permanent settings for all uses of INTREPID:** Edit the **install.cfg** file in the INTREPID **config** directory (for example, **/usr/intrepid/config**). **Note:** Using the **set** commands before launching a tool will override these settings.

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Inserting the contents of one variable into another

- In a task specification (**.job**) file, when you are simply referring to the value of a system parameter, put a **$** symbol in front of its name. For example, **$INTREPIDDATA**
- In a task specification (**.job**) file, if the reference to a system parameter is part of an expression, for example, if you are appending another string to it, put it in parentheses **( )** and put a **$** symbol in front of its name. For example:

  GravityFolder = $(INTREPIDDATA)/gravity

  You can adopt the practice of always using parentheses. This may help to prevent errors.
- In **install.cfg**, always specify existing system parameter names in parentheses with a **$** symbol. For example, **$(INTREPIDDATA)**

install.cfg system parameters example

Some system parameters listed in **install.cfg** will be included in a future edition. Contact our technical support service if you require more information about one of them.

Here is a listing of the part of **install.cfg** that contains the system parameters.

```
Config Begin
      binDir    = $(INTREPID)/bin/$
      configDir = $(INTREPID)/config
      lutDir    = $(INTREPID)/lut
      kernelDir = $(INTREPID)/kernel
      filterDir = $(INTREPID)/filters
      projDir   = $(INTREPID)/proj
      helpDir   = $(INTREPID)/help
      ddfDir    = $(INTREPID)/ddf
      fontDir   = $(INTREPID)/font
      formDir   = $(INTREPID)/form
      tmpDir    = $(INTREPID)/temp
#   System parameters default values
#   User environment overrides these values
#
      FONTPATH              = "$(SystemRoot)/Fonts;$(INTREPID)/font"
      # Memory to use in Mb
      INTREPID_MEMORY         = 64
      INTREPIDDATA            = $(INTREPID)/dataset
      ADEPTH_SENSITIVITY      = NULL
      INTREPID_LFILTER_DTREND = NULL
      INTREPID_DRAPE_LUT      = NULL
#
#     Integration
      # Indicates model vision is installed
      MVIS                          = NULL
      INTREPID_ERMAPPER_UPDATE      = NULL
      # If set update terrascan headers
      INTREPID_TERRASCAN            = NULL
      # If set update arcinfo headers
      INTREPID_ARCINFO              = NULL
```


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```
#
#     Hardcopy
      HPDJSIZ                       = NULL
      INTREPID_MAX_DEVIATION        = NULL
      INTREPID_CONTOUR_TILING       = NULL
      INTREPID_CONTOUR_RESOLUTION   = 0.001
      # hpgl2 Larger than A0
      INTREPID_BIG                  = NULL
      # For SOLARIS allows arcinfo output > 2Gb
      INTREPID_LARGEFILEAWARE       = NULL
#
#     Image Subsetting
      INTREPID_NEAREST              = NULL
      INTREPID_BILINEAR             = NULL
      INTREPID_BICUBIC              = NULL
#
#     Stitch
      INTREPID_FEATHER              = NULL
      INTREPID_MINQEDGE             = NULL
#
#     Gridding
      INTREPID_SHELLING             = NULL
      PHASE_UNWRAP2                 = NULL
      INTREPID_TENSION_SPLINE       = NULL
      INTREPID_2DPOLY               = NULL
      INTREPID_AKIMA                = 1
#
#     Gridding (newgrid3)
      INTREPID_TREND_POINTS         = NULL
      ABSOLUTE_PHASE                = NULL
      DEPTH_SUBSAMPLE               = NULL
      PHASE_EAST_WEST               = NULL
      PHASE_NORTH_SOUTH             = NULL
      INTREPID_INITIAL_ESTIMATES    = NULL
      INTREPID_FAST_POINTS          = NULL
      INTREPID_HONOUR_ORIGINAL      = NULL
#
#     mrad256
      GENERATE_COSMIC_SPECTRUM      = NULL
      GENERATE_INTEGRATED_SPECTRUM  = NULL
#
#
#     Patches
#
#     INTREPID_SOLARIS = # change behaviour of visualisation tool
#     INTREPID_PMILL = # write text to arcinfo file as strokes
#
#     Debug options
#
#     INTREPID_CONTOUR_DEBUG =
#     INTREPID_CONTOUR_NOZOOM =
#     INTREPID_BEST_COLOURS =
#     INTREPID_SPECTRA_INFO         = NULL
#
```


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List of INTREPID system parameters

This section describes INTREPID's system parameters.

Several of these (marked '*') only have 'on' and 'off' states:

- In **install.cfg** if a system parameter has value **NULL** then it is 'off'. If it has any other value, it is 'on'.
- As an environment variable, with no value, it is 'off' and if it has a value it is 'on'

The following table summarises the system parameters.

Parameter name	Contents
INTREPID	The installation folder of INTREPID. See INTREPID and the install path
INTREPID_ARCINFO*	Causes INTREPID to create *ARC/INFO* header and projection files if set. See Compatibility with other software.
INTREPID_BILINEAR*	Causes INTREPID to use bilinear interpolation for determining pixel colour or shade in grid dataset display. See Determining pixel colour or shade in grid display.
INTREPID_ERMAPPER_UPDATE*	Prevents updating of *ERMapper* header files if set. See Compatibility with other software.
INTREPID_FAST_POINTS*	Causes INTREPID to save the sample points during bi-cubic spline initial Gridding. For new grid z only. See Saving interim values in the gridding process.
INTREPID_HONOUR_ORIGINAL*	Causes INTREPID to save the cell centroids and 'exact' positions of sample points during grid initialisation in the Gridding process. See Saving interim values in the gridding process.
INTREPID_JAVA_DEBUG	Turns on verbose debug logging for Java components.
INTREPID_MAX_DEVIATION	Deviation from straight tolerance (in mm) for contour plotting in Hard Copy Composition. See Contour plotting controls.
INTREPID_MEMORY	Grid size above which INTREPID uses tiling in grid operations. Default 256 (MB). See INTREPID_MEMORY and large grids.
INTREPID_MENU	(Old Project Manager only) Contains the path of the menu file that you want to use. See "How to customise the menus" in Configuring and using INTREPID (R04)
INTREPID_NEAREST*	Causes INTREPID to use the nearest cell centroid method for determining pixel colour or shade in grid dataset display. See Determining pixel colour or shade in grid display.
INTREPID_TREND_POINTS*	Causes INTREPID to save the additional trend points during trend spline initial Gridding. See Saving interim values in the gridding process.
LD_LIBRARY_PATH	*(Solaris, Linux and SunOS only)* Paths of dynamic libraries. See LD_LIBRARY_PATH and Solaris / SunOS / Linux.

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INTREPID and the install path

The system parameter INTREPID ontains the full path of the INTREPID installation (for example, **/usr/intrepid** (*UNIX*) or **c:\Program Files\intrepid** (*Windows*)). You can refer to the value of this parameter as **$INTREPID**.

INTREPID sets the value of the system parameter INTREPID automatically. It does not have a definition in **install.cfg**.

If necessary you can override the automatic definition using an environment variable called INTREPID.

You will not normally need to define INTREPID. INTREPID tools calculate their location on startup. Only use the INTREPID environment variable as a fallback debug option in consultation with our technical support service if this calculation fails. It does not work for all tools and may cause anomolous results when launching subprocesses.

Do not attempt to set a value for it unless our technical support service instructs you to do it.

INTREPID_MEMORY and large grids

The criterion for a grid to be classified as large and require tiling is the value of the system parameter INTREPID_MEMORY. If the number of grid cells is greater than the value of this variable, then INTREPID uses tiling in gridding and in Fourier domain filtering

See "INTREPID Memory limits and tiling" in Configuring and using INTREPID (R04) for further information about this variable

Compatibility with other software

INTREPID_ERMAPPER_UPDATE and *ERMapper* header files

If you do not wish INTREPID to change the header files of your *ERMapper* grid datasets when it accesses them, assign the system parameter INTREPID_ERMAPPER_UPDATE a value. See "Accessing data created by other software" in Configuring and using INTREPID (R04) for details.

INTREPID_ARCINFO **and *ARC/INFO* / ERDAS *IMAGINE* access**

If you require *ARC/INFO* and *ERDAS IMAGINE* access to INTREPID datasets, assign the system parameter INTREPID_ARCINFO a value. See "Accessing INTREPID datasets and tools using other software" in Configuring and using INTREPID (R04) for details.

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Saving interim values in the gridding process

INTREPID_FAST_POINTS

If you wish INTREPID to save the sample points as a dataset during bi-cubic spline initial Gridding, assign this variable a value. See "Initial gridding—Bi-Cubic Spline" in Old Gridding (T22).

INTREPID_TREND_POINTS

When you assign a value to this variable it causes INTREPID to save the additional trend points as a dataset during trend spline initial Gridding. See "Initial gridding—Trend Spline" in Old Gridding (T22).

INTREPID_HONOUR_ORIGINAL

When you assign a value to this variable it causes INTREPID to save the cell centroids and 'exact' positions of sample points during grid initialisation in the Gridding process. See "Grid initialisation" in Old Gridding (T22).

Contour plotting controls

INTREPID_MAX_DEVIATION

The deviation from straight tolerance (in mm) for contour plotting in Hard Copy Composition. Increasing the value of this variable reduces the fine detail of contours and the size of your plot files. See "Contouring options available through system parameters" in Including datasets in a map composition (T45b).

Determining pixel colour or shade in grid display

See "Pixellation and zoomed-in grids" in Introduction to INTREPID (R02) for details about this topic.

INTREPID_NEAREST

When you assign a value to this variable it causes INTREPID to use the nearest cell centroid method for determining pixel colour or shade in grid dataset display. We recommend that you unset this variable before using the Grid Stitch or Grid Operations tools.

INTREPID_BILINEAR

When you assign a value to this variable it causes INTREPID to use bilinear interpolation for determining pixel colour or shade in grid dataset display. We recommend that you unset this variable before using the Grid Stitch or Grid Operations tools.

LD_LIBRARY_PATH and *Solaris | SunOS | Linux*

Under UNIX you must add the path of the dynamic library ***install_path*/bin/** (where ***install_path*** is the location of your INTREPID installation) to the system parameter LD_LIBRARY_PATH. See "Configuring INTREPID under Solaris and SunOS" in for further information.

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